



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,387	03/10/2004	Eitaro Morita	8305-238US (NP148-1)	3592

570 7590 04/12/2007
AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
----------	--------------

1764

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.	Applicant(s)	
10/797,387	MORITA, EITARO	
Examiner	Art Unit	
Ellen M. McAvoy	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-19 are rejected under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Andoh et al [European Patent Application (1,104,800)].

Applicant's arguments filed 02 January 2007 have been fully considered but they are not persuasive. As previously set forth, Andoh et al ["Andoh"] disclose a lubricating oil composition for internal combustion engines which comprises a major amount of base oil of lubricating viscosity and, as additives, a metal-containing detergent, a boron-containing alkenyl- or alkylsuccinimide, a zinc dialkyldithiophosphate, an oxidation inhibitor and an ashless dithiocarbamate. Andoh teaches that the lubricating oil composition has a boron content in an amount of 0.01 to 0.2 wt.%. See page 3, lines 5-27. Examples of suitable metal-containing detergents include metal salicylate and metal sulfonate, and the metal may be alkaline earth

metals such as calcium, magnesium and barium. The detergents may be neutral or overbased and having a total base number (TBN) of 150 to 300 mg KOH/g or higher. See page 3, lines 12-37. The ashless dithiocarbamate may be added to the composition in an amount of 0.1 to 5 wt.% and is set forth on page 5, lines 15-20. The examiner is of the position that the lubricating oil composition of Andoh clearly meets the limitations of the above rejected claims since the components may be the same and applicant's open-ended claim language "comprises" allows for the addition of other additives. Although an amount of sulfur of 0.01 to 0.3 % by mass (100-3000 ppm) in the lubricant composition is not set forth by Andoh, the examiner is of the position that the dithiocarbamate component may be added to the composition in an amount such that the sulfur content is within this claimed range.

In response applicants argue that newly added independent claim 6 recites a lubricating oil composition for transmissions in automobiles which the examiner acknowledges is not taught or suggested in Andoh, and that independent claim 10 recites a lubricating oil composition which consists essentially of components (A), (B) and (C) which excludes other components which would materially affect the basic and novel characteristics of the composition. This is not deemed to be persuasive because the recitation "for transmissions in automobiles" in claim 6 has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150,

152, 88 USPQ 478, 481 (CCPA 1951). The examiner maintains the position that independent claim 6 is drawn to a lubricating oil composition which is taught by Andoh as outlined above. The examiner is of the position that the "consisting essentially of" language of independent claim 10 does not exclude the conventional oxidation inhibitor of the prior art because there is no evidence of record that the addition of this additive to applicant's composition would materially affect the basic and novel characteristics of the composition, but rather the composition would additionally have anti-oxidation properties.

The rejection of independent claim 1 under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Andoh made in the previous office action is withdrawn in view of the amendment to claim 1 limiting component (C) to the group consisting of (C-1) thiazole compounds, (C-2) thiodiazole compounds, and (C-6) sulfurized ester compounds.

Claim Rejections - 35 USC § 102/103

Claims 6-19 are rejected under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakamura et al [Japanese Patent (2000-034491)].

Applicant's arguments filed 02 January 2007 have been fully considered but they are not persuasive. As previously set forth, Nakamura et al ["Nakamura"] disclose a lubricating oil composition suitable for use in internal combustion engines comprising a major amount of two specific mineral oils, and, as additives, an organomolybdenum compound, a polybutenyl-

succinimide-boron adduct, an alkaline earth metal sulfonate and an alkaline earth metal salicylate. Nakamura teaches that the amount of boron in the oil composition is within the range of 0.004-0.014 % by weight. Nakamura teaches that the sulfonate and salicylate detergents may be overbased having a TBN in the range of 310-500 mgKOH/g. Nakamura also allows for the addition of an organic polysulfide compound in an amount of 50-1000 ppm of sulfur. The examiner maintains the position that the lubricating oil composition of Nakamura clearly meets the limitations of the above rejected claims since the components may be the same and applicant's open-ended claim language "comprises" allows for the addition of other additives to the oil composition.

In response, applicant argues that newly added independent claim 6 recites a lubricating oil composition for transmissions in automobiles which the examiner acknowledges is not taught or suggested in Nakamura, and that independent claim 10 recites a lubricating oil composition which consists essentially of components (A), (B) and (C) which excludes other components which would materially affect the basic and novel characteristics of the composition. This is not deemed to be persuasive because the recitation "for transmissions in automobiles" in claim 6 has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150,

152, 88 USPQ 478, 481 (CCPA 1951). The examiner maintains the position that independent claim 6 is drawn to a lubricating oil composition which is taught by Nakamura as outlined above. The examiner is of the position that the "consisting essentially of" language of independent claim 10 does not exclude the additional additives of the prior art because there is no evidence of record that the addition of these additives to applicant's composition would materially affect the basic and novel characteristics of the composition, but rather the composition would additionally have increased detergent properties.

The rejection of claims 1-5 under 35 U.S.C. 102(a) or (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saeki et al [Japanese Patent (2002-003875)] made in the previous office action is withdrawn in view of the submission of a verified English translation of the priority document, JP-2001-282319, establishing a priority date of September 17, 2001.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazato et al (6,569,818) in combination with either Yaffe (4,216,100) or Karol (4,761,482).

Nakazato et al ["Nakazato"] disclose a lubricating oil composition having a low phosphorus content of 0.01 to 0.1 weight %, a sulfur content of 0.01 to 0.3 weight % and a sulfated ash (metal content) of 0.1 to 1 weight %, which is comprised of (a) a major amount of mineral base oil having a low sulfur (S) content of at most 0.1 weight %, preferably at most 0.005 weight %, (b) an ashless alkenyl or alkyl-succinimide dispersant or derivative thereof including borated succinimides (column 4, lines 46-55) in an amount of 0.01 to 0.3 weight % in terms of nitrogen atom content, (c) a metal-containing detergent such as an alkali metal or an alkaline earth metal salt of an alkylsalicylic acid in an amount of about 0.2 to 7 weight %, and may include other metal detergents such as sulfonate detergents, (d) a zinc dialkyl-dithiophosphate in an amount of 0.01 to 0.1 weight % in terms of a phosphorus content, and (e) an oxidation inhibitor selected from the group consisting of a phenol compound and an amine compound in an amount of 0.01 to 5 weight %. See column 2, line 25 to column 3, line 7. Nakazato teaches that the lubricating oil composition may be used in internal combustion engines. See column 1, lines 5-11. Applicants' open-ended claim language "comprising" allows for the addition of other additives to the oil compositions such as the zinc dialkyldithiophosphate component of the prior art. Nakazato teaches that the lubricating oil compositions may contain other auxiliary additives such as metal-inactivating agents (e.g., benzotriazole compounds and thiadiazole compounds). Nakazato teaches that the additives can be incorporated into the lubricating oil compositions in an amount ranging from about 0.001 to 3 weight %. See column 7, line 67 to column 8, line 11. Applicant's invention differs by setting forth specific thiadiazole compounds in dependent claims 20-24. However, such compounds are known in the art as

evidenced by either Yaffe or Karol. Having the prior art references before the inventors at the time the invention was made it would have been obvious to the skilled artisan to have added conventional thiadiazole compounds to the lubricant compositions of Nakazato.

Claim Rejections - 35 USC § 103

Claims 1-4 and 6-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (6,617,286) in combination with either Yaffe (4,216,100) or Karol (4,761,482).

Sato et al ["Sato"] disclose a lubricating oil composition for continuously variable transmissions which comprises a lubricating base oil made of mineral oil and/or a synthetic oil formulated with a phosphorus-based wear preventive additive (A), a metal detergent additive (B) and an ashless dispersant additive (C). The phosphorus-containing wear preventive used as component (A) includes phosphate esters and phosphite esters. See column 4, lines 48-63. The metal detergent additive (B) includes overbased calcium salicylates and sulfonates having a TBN ranging from 10-450 mg KOH/g. Sato teaches that the amount of metal detergent is preferably in the range of 100-1000 ppm as a metal content based on the total weight of the composition. The ashless dispersant additive (C) includes boron-containing succinimides which may be added to the composition in an amount of 0.1 to 10 weight %. See column 5. Sato allows for the addition of other additive to the composition including non-borated imide ashless dispersants and metal deactivator compounds including benzotriazole, thiadiazoles and derivatives thereof. See column 6, lines 39-44. Thus, the examiner is of the position that the compositions of Sato clearly

meet the limitations of the above rejected claims. Although a sulfur content is not specifically set forth, Sato allows for the addition of sulfur-containing compounds including the metal deactivator compounds. Applicant's invention differs by setting forth specific thiadiazole compounds in dependent claims 20-24. However, such compounds are known in the art as evidenced by either Yaffe or Karol. Having the prior art references before the inventors at the time the invention was made it would have been obvious to the skilled artisan to have added conventional thiadiazole compounds to the lubricant compositions of Sato.

Claim Rejections - 35 USC § 103

Claims 1-4 and 6-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogano et al (6,638,897) in combination with either Yaffe (4,216,100) or Karol (4,761,482).

Ogano et al ["Ogano"] disclose a lubricating oil composition for internal combustion engines comprising a base oil composed of a mineral oil, synthetic oil, or mixtures thereof, incorporated with (A) an overbased calcium salicylate having a TBN in the range of 30-100 mgKOH/g in an amount of 0.05 to 0.90 weight % as calcium, and (B) a succinimide selected from the group consisting of (1) a boron-containing succinimide having a weight-average molecular weight of 3,000 or less at 0.04 weight % or less as boron, and (2) a non-borated succinimide having a weight average molecular weight of 3,000 or less at 0.01 to 0.25 weight % as nitrogen, and (3) mixtures thereof. See column 3, lines 7-53. Ogano teaches that the base oil may be used either individually or in combination and the oil(s) have a kinematic viscosity in the

range of 2 to 20 mm²/s at 100°C. Ogano allows for the addition of other additives to the compositions that include sulfided esters friction reducing agents in an amount of 0.05 to 3 weight %, dithiocarbamate antiwear agents in an amount of 0.1 to 5 weight %, and metal deactivators including benzotriazole, and thiadiazole derivatives in an amount of about 0.001 to 3 weight %. See column 7, lines 21-46. Thus the examiner is of the position that all of the components of applicant's claims are taught by Ogano. Although a sulfur content is not set forth, the sulfur-containing compounds may be added in amounts which place the sulfur content of the oil compositions in the claimed ranges. Applicant's invention differs by setting forth specific thiadiazole compounds in dependent claims 20-24. However, such compounds are known in the art as evidenced by either Yaffe or Karol. Having the prior art references before the inventors at the time the invention was made it would have been obvious to the skilled artisan to have added conventional thiadiazole compounds to the lubricant compositions of Sato.

The rejection of claims 1-6 under 35 U.S.C. 103(a) as being unpatentable over Hata et al (6,303,546) made in the previous office action is withdrawn in view of applicant's amendments and arguments.

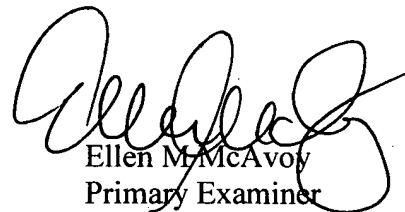
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

Art Unit: 1764

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ellen M. McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
April 5, 2007